CESO-E 28 October 1996

MEMORANDUM THRU COMMANDER, U.S. ARMY ENGINEER DIVISION, SOUTH ATLANTIC, ATTN: SAFETY AND OCCUPATIONAL HEALTH OFFICE, 77 FORSYTH STREET, S.W., ATLANTA, GA 30335-6801

FOR COMMANDER, U.S. ARMY ENGINEER DISTRICT, JACKSONVILLE, ATTN: SAFETY AND OCCUPATIONAL HEALTH OFFICE, PO BOX 4970, JACKSONVILLE, FL 32232-0019

SUBJECT: Inspection and Testing of Air and Gas Compressors

- 1. In response to your phone call requesting guidance on hydrostatic testing of air receivers on portable air compressors, I conducted research on the matter and am providing guidance to supplement the requirements of para. 20.A.01-02 of EM 385-1-1. The following requirements are applicable only to air and gas compressors and supercede the requirements of para. 20.A.01b-d and 20.A.02 of EM 385-1-1 only for these compressors.
 - a. Low pressure air and gas compressors (500 psi and less) shall be inspected and tested, as specified in para (1)-(3) below, at twelve month intervals or at any time a malfunction or erratic operation indicates the need. Components of low pressure compressors shall not be removed during tests unless they are found to be defective: if removal of components or accessories is required they shall be tested and reinstalled in accordance with the manufacturer's recommendations.
 - (1) Make a detailed visual inspection of the entire unit, paying particular attention to the exterior conditions of the receiver, gages, unloaders, relief devices, fittings, valves, and hoses.
 - (2) Install a calibrated gage on the received discharge shutoff valve.
 - (3) Operate the compressor and check the operational gages for accuracy by comparing the pressure reading to the calibrated gage pressure reading. Check the operation of all valves and ensure proper operation of the unloader. Check the operation of the safety valve.
 - b. High pressure air and gas compressors (greater than 500 psi) shall be inspected and tested at twelve month intervals or at any time a malfunction or erratic operation indicates the need. In addition, high pressure air and gas compressors

shall be subjected to a hydrostatic pressure test every twenty-four months or at any time a receiver shows evidence of bad dents, corroded areas, leakage, or other conditions that indicate weakness which might render the receiver unsafe. All inspections and tests, including hydrostatic pressure tests, shall be in accordance with TB 43-0151.

2. I hope this clarifies our air and gas compressor testing and inspection requirements. If I can be of further assistance, please give me a call at 202/761-8668.

JAMES T. PATTON, P.E.

Systems and Engineering Programs
Safety and Occupational Health Office